ASBESTOS

A MONTHLY
MARKET
JOURNAL

JULY
1933

30 YEARS EXPERIENCE

FOR 30 years, we have specialized in the production of quality asbestos textiles.

Beginning with the crude asbestos rock, every process of manufacture is conducted in our splendidly equipped plant.

Our research laboratories and engineering staff have developed asbestos products accepted and used in a wide range of industries.

Experience, knowledge, facilities, resources: these essential factors enable us to design and make asbestos textiles of every character and for all purposes.

General Asbestos & Rubber Division
of
RAYBESTOS-MANHATTAN, Inc.
NORTH CHARLESTON, S. C.

..ASBESTOS..

A MONTHLY MARKET JOURNAL DEVOTED TO THE INTERESTS OF THE ASBESTOS AND MAGNESIA INDUSTRIES

A. S. ROSSITER, *EDITOR*

PUBLISHED BY SECRETARIAL SERVICE

16th FLOOR INQUIRER BUILDING

PHILADELPHIA, PENNSYLVANIA

C. J. STOVER, OWNER

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The Fifteenth Year

This, the July number, marks the beginning of our fifteenth volume, and of our fifteenth year.

Thruout these years our aim has been to give the Asbestos Industry information on Asbestos, and if you will glance over any back number you will find very few articles, outside of those prepared especially for the salesman, that can not be connected in some manner or other with Asbestos, Asbestos Products or Asbestos People.

Many of our readers have helped us by sending news, articles and ideas, to say nothing of their helping by entering and renewing subscriptions and advertising. Mostly due to the interest shown by our readers, information on asbestos reaches us from almost every country in the world, certainly from every country that has Asbestos Mines or Factories.

Probably the most welcome mail is that which tells us that our efforts are appreciated. During the last year we have had such comments as these:

An executive in the brake lining industry—"Always read it thru. Cover to Cover."

An insulation contractor—"If possible to furnish us with a copy of "ASBESTOS" from February 1933 we wish you would do so as somebody evidently found it interesting and carried it off. We wish to keep all issues on file."

An American Consul—"I have enjoyed reading this magazine myself and also have taken pleasure in placing it on the Consulate's public reading table."

A contractor and jobber in insulation and other products—"We like your magazine and will be glad to send you news whenever we have any to report."

Those letters which criticise and above all, which offer suggestions for articles or improvement of the magazine are also welcome, and we particularly appreciate letters which give us news *when it is news.*

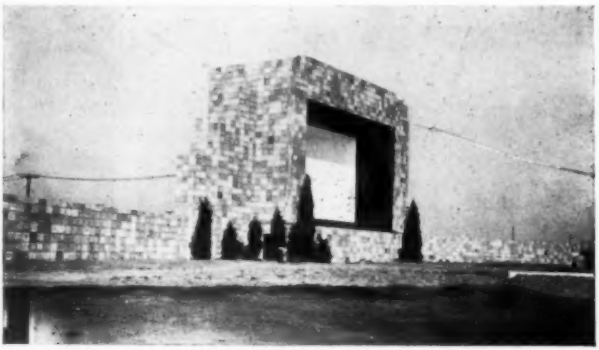
In this, our fifteenth year, we ask your help—for only with your help can we hope to continue to make the magazine "ASBESTOS" interesting, helpful and a real asset of the Industry.

The Outdoor Movie Theatre

As you drive down Admiral Wilson Boulevard, thru Camden, N. J., on your way to Atlantic City and other shore resorts, you pass quite an imposing structure, 56 feet high, which looks like a limestone building.

This is the latest in movie theatres and instead of having seats for its patrons, has merely tiers, 50 feet wide, sufficient to accommodate four hundred automobiles. Patrons simply drive in, place their car in position, look at the movie as long as they please and drive out whenever they please, as there is sufficient clearance between the cars for them to arrive or leave without disturbing others already in place.

The tiers, or roadways, are graded so that the front wheels of the car are higher than the rear, and the 50 foot clearance gives sufficient room for the occupants of the cars to see the movie screen without any trouble.



The latest in Moving Picture Theatres, designed for motorists.

The photograph shows the very attractive appearance of this open air theatre, but even when looking at the building itself, one would hardly guess that the walls are covered with Linabestos Board, instead of being built entirely of limestone. This Linabestos Board, as

most of our readers know, is a special wallboard made by the Keasbey & Mattison Company, of Asbestos and Portland Cement. It is buff in color, and the architect was so pleased with the appearance of the building when it was covered that he decided to add the wings.

This Linabestos Board comes in sheets 48 in. x 48 in. and 48 in. x 96 in., in 3/16 in., 1/4 in. and 3/8 in. thickness. The sheets used on this movie theatre were 21 in. x 24 in. and 3/16 in. thick. The checkered appearance is obtained by using different shades, the usual buff, with a few grays and blacks mixed in.

Linabestos has many utilitarian uses, such as the partitions, shelving, fireproofing or panel effect on exteriors, on chicken houses, and dairy barns. It is particularly useful in the latter two cases as it is sanitary, fireproof and, more important still, vermin proof. The photograph shows that beauty as well is possible with Linabestos.

And by the way we understand that this is the only outdoor movie theatre in the world. The idea is protected by patents owned by R. M. Hollingshead, Jr., and W. W. Smith.

Asbestos Corporation, Limited, of Thetford Mines, Canada, very kindly furnished the photograph used on the front cover. We picked this as being a typical scene in an asbestos mine. If our readers approve it is likely that we will use this same design for our cover for succeeding years, changing the picture each July.

Someone suggests, apropos of the article in our June number "Mention of Asbestos by the Public Press," that a larger distribution of the magazine "ASBESTOS" to important executives in large industries might help to educate the public. Do you know of anyone of that description to whom you would like a copy of "ASBESTOS" sent each month. Bulk subscriptions are given a cheaper rate. A number of Departments and officials of the United States Government in Washington are on our list, and we know that some of them at least, appreciate receiving it.

Carey INSULATIONS AND ASBESTOS PRODUCTS

HIGH PRESSURE STEAM INSULATION

85% Magnesia and Asbestos Pipe Covering, Blocks and Cement.

SUPERHEATED STEAM INSULATION

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Alumino Hi-Temp Blocks, Bricks and Cement.

HEATING SYSTEM INSULATION

Cellular and Laminated Asbestos Pipe Coverings, Blocks and Cement.

COLD INSULATION

Anti-Sweat Pipe Coverings, Hair Felt and Cork.

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Plastic and Dry Refractory Cements, Asbestos Paper, Asbestos Millboard, Asbestos Packings, Asbestos Cements, Flat and Corrugated Sheathing, Careystone Asbestos Cement Shingles, Asbestos Fibre.

The Carey Line offers a profitable opportunity to wholesalers and appliers of insulation materials. Write for prices.

THE PHILIP CAREY COMPANY

Main Offices: ***Lockland,*** **Cincinnati, Ohio**

Branches and Distributors in Principal Cities

Haveg-The Protection Against Chemical Corrosion

In 1922 a German Company was incorporated under the name of Saureschutz Gesellschaft, primarily, as the name suggests, for the development of materials which afford protection against acid.

After several years of research and development, a product was offered to the trade under the trade name of "Haveg." This product, covered by patents, is composed of the well known acid resisting material asbestos, used as a base material, and molded into a solid homogenous mass by mixing with a specially prepared acid resisting resin of the phenol-formaldehyde type and subjecting the mold to heat and pressure. The remarkable characteristics of this product have placed it in a position of unusual prominence in the chemical and textile industries of Europe.

The use of asbestos as a base material for acid resisting equipment had been attempted many times, but never with much success until 1925 when Haveg was introduced in Europe; it has been manufactured in the United States for only six months.

The especially high acid resisting properties of the resin used in the manufacture of Haveg, combined with the acid resistance of the asbestos, provides a material which is completely resistant thruout the mass. There is no possibility of chemicals penetrating the material and destroying the base as has been encountered with products of this type in which non-resisting cellulose materials have been used.

The asbestos-resin compound after thoro mixing is placed in the desired molds and subjected to heat and pressure to form it into a single, solid piece of the shape or size required. One piece seamless Haveg tanks have been made as large as ten feet in diameter and ten feet high. By combining in units of easily handled size, almost any type or size of installation may be secured.

The material has exceptional characteristics in that it is light in weight (specific gravity is one fifth that of

From

CRUDE ORE

to

FINISHED PRODUCT

Johns-Manville carries on the entire manufacturing process of asbestos. Mines in Arizona and Canada, thirteen factories located strategically across the continent and branch offices in all large cities assure prompt and efficient service.

In a hundred ways Johns-Manville products contribute to the comfort of modern life and to the efficiency of industrial establishments. Packings, high temperature insulations, refractory cements, low pressure insulations, asbestos roofings, brake linings and industrial friction materials, flooring and acoustical treatment form some of the major items manufactured by Johns-Manville.

Through constant research in the J-M Laboratories, scores of other items have been developed, important to the economic and physical welfare of people throughout the country.

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EXECUTIVE OFFICES: NEW YORK

Branches In All Large Cities

JOHNS-MANVILLE

JM

PRODUCTS

iron); stands blows very well, does not chip or fracture easily; has a compressive strength of 10,400 pounds per square inch and a bending strength of 5,600 pounds to the square inch. It can be used up to 130° C (275° F.) without any harmful effect and it is not affected by rapid changes of temperature.

It can be machined, easily repaired if it becomes damaged, and easily washed with a hose since it is non-absorbent.

Of course its chief advantage lies in its chemical resistance. The manufacturers furnish a long list of acids, bases, solvents and salts which it successfully resists. These are:

Acids
- Acetic, any conc.
- Fatty Acids
- Formic, up to 40%
- Hydrochloric, any conc. and temp.
- Hydrobromic, any conc.
- Lactic, any conc.
- Oxalic, any conc.
- Phosphoric, any conc.
- Sulphuric, up to 50%
- Sulphurous
- Tannic
- Tartaric

Bases
- Ammonia
- Caustic Lime
- Neutral Soap Solutions
- Phosphates
- Potassium Carbonate
- Sodium Carbonate
- Sodium Sulphide (Alk. Free)

Solvents
- Alcohol
- Carbon Tetrachloride
- Ethylene Chlorhydrin
- Hydrocarbons
- Oils
- Petroleum
- Trichlorethylene

Salts and Other Chemicals
- Aluminum Acetate
- Aluminum Chloride
- Aluminum Oxalate
- Aluminum Sulphate
- Ammonia
- Ammonium Sulphate
- Aniline Salts
- Benzine Soaps
- Calcium Chloride
- Calcium Hypochlorite
- Carbonated Waters
- Chlorine
- Chlorine Water, Saturated
- Chloride of Lime Solutions
- Copper Sulphate
- Ferric Chloride
- Ferrous Chloride
- Ferrous Amm. Citrate
- Hydrogen Peroxide
- Hydrogen Sulphide
- Magnesium Chloride
- Manganese Sulphate
- Milk of Lime
- Oxalates
- Paraffin
- Potassium Iodide
- Sulphur, molten
- Sulphur Monochloride
- Sulphuretted Hydrogen
- Sodium Peroxide Solutions
- Water Glass
- Zinc Chloride.

THE BEST IN ASBESTOS

K&M

NEW merchandising plans, new packages, improved products, yet the same basic materials that have kept Keasbey & Mattison Company in the limelight for over half a century!

Many changes have been seen at K. & M. in recent months — improvements in merchandising, new products to meet new conditions arising in the industry.

But *fundamentally* K. & M. materials are based on the same premier grades of Bell Mines Asbestos Fibre from our own mines, prepared by proved processes and accepted for years as standard. We have guarded against lowering standards and weakening K. & M. quality. Each change has been an improvement — yet prices are keyed to the times.

For heat insulation, fireproof building materials, gaskets, textiles, automotive brake linings or other asbestos products, consult K. & M. A few territories are still available for distributorship.

Keasbey & Mattison Company

AMBLER, - - PENNA.

Then there is Haveg 43, which has been developed for resistance to

Hydrofluoric Acid
Hydrofluoric Acid Mixtures
Fluosilicates
Fluosilicic Acid
Fluorides
Flourine Compounds

There are a few acids which it does not resist, these being:

Acetone
Nitric Acid
Organic Bases, as Pyridine
Sodium Hydroxide
Sulphuric Acid, hot concencentrated
Chromic Acid in Higher Concentrations
Potassum Hydroxide
Sodium Hypochlorite

Anyone interested in acid equipment will immediately realize the numerous places where Haveg can be used to very great advantage. Some of the principal ones are for the manufacture of:

Organic and Inorganic Dyes and their intermediates
Organic Acids
Silk
Textiles
Copper Sulphate
Oils and fatty acids
Hydrofluoric acid
Pharmaceutical preparations
Fertilizers
Cellulose and paper
Rayon
Electrochemical and electrolytic processes
Glass and lamp bulb works
Metal works for pickling

It has a multitude of uses wherever chemical corrosion is a problem, such as kneading and mixing machines, filter cells, air filters, drying equipment, crystallizing dishes or trays, ventilators, fume ducts, chimneys, gas washers, absorption towers, precipitators, pipes and fittings, valves and cocks, pump parts, housings, distillation apparatus, acid buckets and dippers, tower grids, dust and vapor towers, filter funnels, acid storage and transport vessels, floors and floor jointings, drains, etc., etc.

Haveg made in the form of pipes and fittings for the transmission of acids can be either solid Haveg or the material can be reinforced with an iron shell.

One of the most important and advantageous uses of Haveg is in dyeing vats and machines and other textile equipment. Vats made of this material possess smooth, durable, impervious surfaces. There is no splintering or roughness to damage fabrics or yarns. The vats can be

JOHNSON'S COMPANY

ESTABLISHED IN 1875

Head Office

Thetford Mines, P. Q., Canada

Mines

Thetford Mines, Quebec
Black Lake, Quebec

Producers of All Grades of

RAW ASBESTOS

AGENTS

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cleaned easily by simply washing out with a hose and there is no absorption of dye to injure succeeding fabrics, thus enabling the equipment to be changed over quickly to different colors.

Still another advantage of the material in dyeing machines is the fact that it is low in heat conductivity. Dyeing machines constructed to take advantage of this characteristic have saved as much as 50% in steam consumption.

The complete resistance which Haveg offers against hydrochloric acid under any conditions of temperature and concentration is especially interesting. In many cases chemical reactions are performed more quickly and more efficiently with hydrochloric than with sulphuric acid, yet it has been necessary to use sulphuric acid because of the lack of a material which would withstand the hydrochloric. With Haveg hydrochloric acid can be used whenever it offers an advantage over sulphuric.

When solutions of sulphuric acid up to 50% concentration have been used it has previously been the general practice to use lead linings or all lead equipment. The lead is heavy, likely to buckle when used as a lining of wood tanks, and when used as pipe or fittings is easily damaged. Haveg has none of these disadvantages.

Any of our readers who may have a corrosion problem which needs solving should get in touch with the Haveg Corporation of Newark, Delaware, the company manufacturing Haveg in the United States.

Anyone desiring to employ salesmen with experience in the Asbestos Field should apply to "ASBESTOS" as we have the names of several salesmen on file. Likewise we would be glad to file names of other salesmen, so that such names may be available when inquiries are received.

In the Market for Large or Small Quantities of
Metallic Yarn Waste—Asbestos Textile Waste — Scrap Cloth
Yarn Cuttings — Loom Sweepings — Cardroom Strippings
V. LEONARDIS & SONS
47-49-51 Adams Street NEWARK, N. J.

Why Brake Linings Must Be Better Today Than in 1927

By T. M. Russell, Jr., Testing Engineer,
Russell Manufacturing Company

The past five years have seen many changes in car construction and design. Increased tire oversizes and decreased tire diameters have prohibited an increase in brake sizes, in many cases necessitating smaller diameter units. Increased brake performance has thus been required and obtained either thru an increase in servo action or by booster mechanisms. Consequently, service pressures on the lining materials have increased.

While car design has thus materially added to the work required of brake and lining, the major change which imposes severe conditions on the friction material is the increase in speed. This is easily shown by comparing the increase in speed with the work required of the brake and lining in absorbing increased energy. To present this situation in an uncomplicated manner, let us arbitrarily assume that speed during the past five years has increased from an average of 40 m. p. h. to an average of 50 m. p. h. This is an increase in distance traveled per unit of time of 25%. It is natural to assume that the work required of the brakes has also increased 25%. This, however, is not the case. The energy which the car builds up does not increase directly as the speed increases, but increases as the speed multiplied by itself. Thus, for 40 m. p. h. we have 40 times 40 or 1600 as a function of the developed energy and for 50 m. p. h. we have the comparative figure of 50 times 50 or 2500. The percentage increase of energy to be absorbed is therefore 2500 minus 1600, divided by 1600 or 56%. Of course, this figure does not take into account the brake effect of road adhesion, wind resistance, etc., and is merely for general comparative purposes. It does show, however, the large increase in demand on the braking units.

What does this 56% increase mean in terms of increased duty imposed on the brake lining? The 25% in-

crease in speed means greater drum velocity on the lining, but the energy increase of 56% means a large increase in temperature and heat conditions.

Each brake application requires the absorbing or dissipating of energy by the friction material and drum. This energy, while the vehicle is moving, is made up of motion and weight. The operation of the brake requires the transfer of this energy into heat units. As the drum has a much higher rate for conducting heat than the lining, the majority of heat units pass into the drum and are then gradually dissipated into the air. The drum thus acts as a heat reservoir and as long as certain limits are not exceeded it performs this function of absorbing heat and dissipating it gradually into the air in a satisfactory manner.

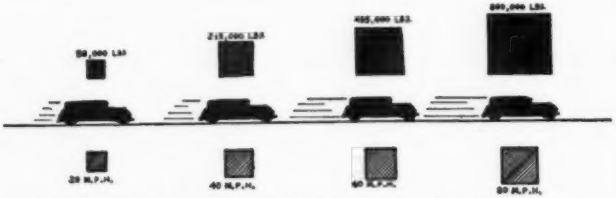


Chart showing energy absorbed by brakes in stopping from various speeds. Note that the energy required to stop increases approximately as the square of the speed. In other words, stopping from 40 m. p. h. requires not twice, but approximately four times as much energy as stopping from 20 m. p. h.

Our 56% increase in energy to be absorbed strains the capacity of this heat reservoir. As the rate at which the drum can dissipate its heat units into the air is far lower than that at which it can absorb them from the lining, it follows that the drum can only act as a reservoir for this extra heat by an increase of its own temperature. As this increase is proportional to the energy absorbed it follows that the drum can only act as a reservoir for this extra heat by an increase of its own temperature. As this increase is proportional to the energy absorbed it follows that the drum temperature increase is close to our 56% energy increase. Roughly speaking, this means

VERMONT ASBESTOS FIBRE

MINED IN U.S.A.

Its chemical and physical characteristics make Vermont Fibre particularly adapted to the better grades of

ASBESTOS

SHINGLES - CORRUGATED SHEETS
LUMBER - PAPER
MILL BOARD - CLUTCH FACING
MOULDED BRAKE LINING
ROOF COATINGS - FIBROUS PAINT
PLASTICS - MOULDED PRODUCTS
BOILER COVERING CEMENTS

• • •

Vermont Asbestos Corporation
HYDE PARK, VERMONT

that maximum drum temperature of 400° F. for the old 40 m. p. h. speed is now increased to 600° F. for the new 50 m. p. h. speed.

As a majority of the linings which would operate satisfactorily at 400° F. or under, break down when subjected to 500° F. or more — show rapid wear, fade and drum score — it is evident that this increase in speed presents a real problem to the lining manufacturer.

When one considers that the biggest speed increase is in the field of rapid commercial trucking and bus work, where the demand on brake and lining has always been severe, it is obvious that these problems are further increased and multiplied.

Control of heat, its proper distribution, absorption and dissipation, so that certain limits are not exceeded, is the goal of the lining manufacturer. This work, of course, requires the cooperation of the brake and drum manufacturers in order that excessive pressures may be avoided and proper heat reservoirs with higher dissipation rates provided.

High-Grade Asbestos Textiles

CARDED FIBRES
YARNS, CORD, MANTLE YARNS
PLAIN AND METALLIC CLOTHS
BRAIDED AND WOVEN TAPES
BRAIDED TUBINGS
WOVEN SHEET PACKINGS
WOVEN BRAKE LININGS
GLOVES, MITTENS, LEGGINS
GASKETS, SEAMLESS AND JOINTED
PACKINGS, STEM AND HIGH PRESSURE
WICK AND ROPE

ASBESTOS FIBRE SPINNING COMPANY
NORTH WALES, — PENNA.

ASBESTOS

King's Mine, Showing New Incline from Underground Development

ASBESTOS CORPORATION LIMITED

THETFORD MINES

QUEBEC CANADA

Making the Public Aware of Asbestos

While so far very few responses have been made to our suggestion on page 13 of June "ASBESTOS," one of them has given us, and we believe will give all readers of "ASBESTOS" much food for thought. Mr. George W. Hinman, who writes us on this subject, is in the insulation business, and has been for a number of years. His viewpoint should be of value.

It, of course, isn't the public's fault, but our own, that the public is ignorant regarding asbestos, its history, procurement, manipulation, value. Short-sighted selfishness, indifference, and poverty I believe are mostly responsible for the condition. To be sure, my observations are from experience as an insulation contractor, but those who hold the greatest opportunity of acquainting the general public with the peculiarities and services of asbestos are the many local representatives of manufacturers, the majority of whom are primarily contractors.

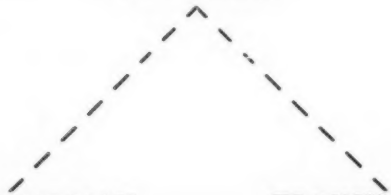
We receive very little encouragement from our principals in this regard. Our contacts are limited almost entirely to personal solicitation — selfish presentation for general or specific service. Individual benefit has been our aim. Furthermore, what result can be expected other than exists when we spend most of our energy either in cutting down and preventing our competitor from securing a fair profit if he gets a sale, or endeavoring to do the impossible for ourselves if our competitor loses the sale?

In our "rugged individualism" we have been indifferent to future or general advancement of our industry. We pass up many a good bet to promote the desire of your correspondent because we see no immediate gain for ourselves or because the effort overbalances the apparent value.

And too, with competition and profits what they are, we can't afford to do much in the way of advertising or educational development for our industry unless we can

RAW ASBESTOS

All Grades



RHODESIAN

TRANSVAAL
(SUPERFINE)

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LTD.

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LONDON, W. C. 2 ENGLAND

CABLES:—VULBESTON, LONDON

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U. S. A.	FRANCE	GERMANY & Central Europe	JAPAN
W. D. CRUMPTON & CO.	GEORGES PARLY	BECKER & HAAG,	C. H. NELSON
8-10, Bridge St., New York.	10 Rue De La Pepiniere, Paris.	Bernburgerstr. 31, Berlin.	96, Yodo Machi, Kobe.

see immediate and individual benefit. An industry or a business conducted along such lines doesn't lend itself readily to favorable publicity.

Now, since I have inferred that my fellowmen in this industry are not growing particularly wealthy from its profits, I might as well go the whole distance and hazard a suggestion that we as individuals of a great industry are not any too well educated beyond our own functional duties. Again I speak from personal experience.

For more than a year now under the name of "Hinman Insulators" a monthly reminder of our existence has been mailed to customers and prospective customers. I am told that it is darn poor advertising and all that, but anyway it has been interesting personally. The January issue, for no particular reason except difference, was printed on six pound asbestos paper. It was surprising to see the many comments it provoked and the questions which resulted. I was also astonished to learn of the curiosity and interest which prevailed, to say nothing of the ignorance and misconception regarding the basic material of our products.

As a result we have continued to use asbestos paper (in spite of our printer's objections) and I have included an article in each of the past few issues regarding the history, discovery, mining, etc., of asbestos. By so doing I learned how unqualified I am to write regarding the facts of my own business' lifeblood; also how little authentic information was readily available for my use. I have been forced to study a subject which is in itself of value even if no one ever reads the articles except my wife.

Last year I had another experience along the subject of your correspondent's thoughts. Son, Bill, was at camp down in Maine and I was impressed with the interest the younger boys took in their nature study. Realizing how boys prize some particular token for excellence and noticing there was no award in this subject, I decided to make a donation for this purpose. Asbestos in its natural state seemed suitable and appropriate so far

as I was concerned. With it I sent a simple statement of its structure and use.

I would like to do the same thing this year, but it is quite a task to go thru the program of securing the rock, shopping for a suitable glass dust cover, getting a wood base turned to fit the glass and finished, mounting, and all that. Such things ought to be available at small cost —but where?

It is possible that if educational items, specimens, suggestions, etc., were more readily procurable for general distribution we would be more alert in accepting our opportunities for the general advancement of the asbestos industry.

George W. Hinman of
Hinman Asbestos Corporation,
Cambridge, Mass.

ASBESTOS

Arizona Crude *Canadian Crude*
Italian Crude *Russian Crude*
Rhodesian Crude
Canadian Spinning Fibre
Canadian Shingle Fibre
South African Blue Crude
South African Yellow Crude

ASBESTOS LIMITED INC.
8 West 40th Street : New York City
Works: MILLINGTON, N. J.

MARKET CONDITIONS

General Business.

The July letter of the National City Bank is particularly interesting because it reports for the first time in almost three years a real advance. We will quote the first paragraph, altho the whole letter is well worth reading, and can be obtained from the National City Bank in New York City if desired.

"The upward movement of business has continued during June without interruption. At this time of the year business men usually expect a summer recession to be well under way, but this rise is so vigorous that seasonal restraining influences thus far have had no effect. Operations have been stepped up steadily in the industries, and despite the increases in output and shipments, their unfilled orders are holding at very satisfactory levels. In most lines the backlog is sufficient to keep mills and factories going for some time, and little is now heard of the expectations of a substantial summer decline which were entertained in many quarters a month or more ago .... Within a few more weeks the crops will be moving, and considering the improved farm prices there is reason to hope that the Fall rise in trade will be a substantial one, bolstered by a greater farm purchasing power than has been present in the past year or two. Stock prices have advanced since the first of March by some 85 per cent and bond prices by 15 per cent, according to representative averages. The recovery in the value of the stocks and bonds listed on the New York Stock Exchange up to June 1 was fifteen billions of dollars. This is much more than a sentimental influence on business. It has added to purchasing power not only because some of the profits have been realized but because the rise increases the ability of security owners to command credit."

Asbestos. Raw Material.

There has been a decided improvement in the demand for Raw Asbestos. Notwithstanding arrivals of Russian Asbestos there has been no change in price by sellers, in

fact the market for all grades is firm.

Asbestos. Manufactured Goods.

Textiles. Volume in this commodity seems to be coming along very nicely. Prices show a tendency to rise.

Brake Lining. This market was substantially increased in May, and June was even better. With increased automobile production, and the touring season begun, sales should show a decided upward movement.

Insulation. High Pressure. The past sixty days have shown a very nice, but not startling, increase in shipments. Doubtless any general recovery will bring greater volume and happier times to this industry. Prices are firm.

Low Pressure. Volume during the past month has been surprising in this market being higher than any previous month back to last August. Most of this is due to the fact that September needs are being anticipated and many buyers figure that they do well to increase their inventories and decrease their supply of dollars. As business increases future months, it is believed, will show the same favorable market.

Paper and Millboard. Practically the same comments as apply to to low pressure insulation can be said for Paper and Millboard.

Asbestos Cement Products. Sales of Asbestos Cement Shingles continue at a very satisfactory rate with no marked change from the previous month in general market conditions and no changes in the price level.

Manufacturers are continuing to experiment with interesting new designs that have a tendency to economize on the amount of material required for efficient roofing and siding without in any way detracting from the recognized satisfactory high standards that have long been maintained in this type of roofing material. Such conditions cannot but augur well for the future of Asbestos Cement Shingles.

Summary. Reports are reaching us almost daily, of increases in employment and in business, many of these

coming from Asbestos firms. Business aspects are brighter than for some time.

The above represent the opinions of men in the industry closely in touch with conditions in their various fields. All opinions and comments are most gratefully received.

The Blue Asbestos Position - 1933

(Contributed)

As shown in the official returns of the Union of South Africa Mines Department the production of crocidolite (Blue Asbestos) has decreased to little more than a third of what it was two years or so ago, while the average price obtained is some 20 per cent less. The tendency at present is slightly better, but the demand is almost entirely for short fibre, stated to be more and more used in certain classes of cement work in which it is claimed it shows decided advantages over the white variety. The higher grades of "blue" are hardly saleable at present.

In the Northern, or Kuruman area, the mines and treatment plant of the Dominion Blue Asbestos Mines, Ltd., are at complete standstill, tho there are a few small producers at work. Around Prieska the Cape Asbestos Co., Ltd., have continued production on a reduced scale right thru and there are a few other mines at work also.

Up to some few years ago all preparation of the fibre, cobbing, was done by hand, but gradually this method is being supplanted by machinery. The very complete crushing, fiberizing and grading plant at Kuruman, now unfortunately idle, was the first established. The Nauga Asbestos Mines Limited, a Johannesburg concern, erected at their mine near Prieska a very complete and compact plant for treating all rock from the mine except that containing a large proportion of long fibre. This plant has been started up again during March. This present year has seen the completion and commencement of work of a cleaning, grading and sifting plant for the Cape Asbestos Co., Ltd., at Prieska. The product thoroly cleaned, is much superior to the old hand cobbed short crude which, of course, contained about 10 to 15 per cent of grit and rock.

CONTRACTORS AND DISTRIBUTORS PAGE

INSTANCES WHERE C. I. SAVED JOBS

Most of our readers are familiar with C. I. (Certified Insulation) as introduced and practiced by the Asbestos Bureau, Inc., in the Northwest. (See "ASBESTOS", May and June 1931, page 22 in each issue).

The Executive Secretary of Asbestos Bureau, Inc., Mr. C. A. Parks, tells of two instances where C. I. Specifications have saved jobs for the Bureau recently.

A powerful "Chiseler," made every effort to break a C. I. Specification, but the architect and engineer were sold on C. I. and refused to let down. One of the members of the Asbestos Bureau, which sponsors C. I. Specifications, secured the job.

In the other instance the job had not been let at the time Mr. Parks wrote us, but the architect and engineer both gave assurance that the Certified Insulation Specification would be enforced as written. In this case the architect, who was known to be a little weak on execution, was asked not to specify C. I. unless he believed in it and desired to cooperate with the Bureau in getting a good job for his client. Further, he was told that the Bureau did not want C. I. Specifications used as a fence for bootleggers and chiselers—this brought him over, strong.

Certified Insulation is needed now more than ever before. A C. I. Specifications means a good job for the contractor, employment for good mechanics and a satisfied customer.

C. I. also means increased sales for manufacturers because it eliminates the "job skinner" who tries to cheat by the omission of materials on concealed work.

Contractors Groups in various cities who are contemplating an association for the betterment of conditions in their territory, or those who are already associated, may be interested in getting from Mr. Parks, whose address is Asbestos Bureau, Inc., 106 Securities Building, Seattle, Wash., full information on C. I. Specifications.

AUTOMOBILE PRODUCTION

For three months, March, April and May, production of automobiles in the United States and Canada has increased, until the total for May was 227,567. April production was 188,922, March 124,581.

May 1933 production was higher than any previous month back to June 1931 when the total figure for the United States and Canada was 257,475. It is possible that June 1933 production will equal that for June 1931.

Africa (Rhodesia).

(Statistics published by Rhodesia Chamber of Mines).

	April 1933 Ton (2000 lbs.)	Value		
Bulawayo District				
Nil Desperandum (Afr. Asbestos Mining Co. Ltd.)	302.90	£ 3,786	s. 5	d. ..
Shabanie (Rhodesian & General Asb. Corp. Ltd.)	2,861.30	35,766	5	..
Victoria District				
King & Gath's (Rhodesian & Gen. Asb. Corp. Ltd.)	500.10	6,251	5	..
	3,664.30	£45,803	15	..
April 1932	*1740.27*	*£21,753*	*8*	*9*

Africa (Union of South).

(Statistics supplied by Dept. of Mines for the Union of S. A.)

	March 1932 Tons (2000 lbs.)	Value	March 1933 Tons (2000 lbs.)	Value
Transvaal				
Amosite	135.100	£1,351	255.50	£ 2,555
Chrysotile	618.000	5,430	1,293.50	11,818
Cape				
Blue	162.79	3,068	191.16	3027
	915.89	£9,849	1,740.16	£17,400

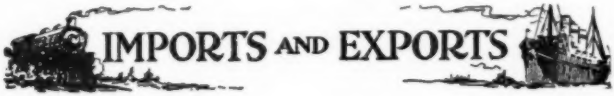
	April 1932 Tons (2000 lbs.)	Value	April 1933 Tons (2000 lbs.)	Value
Transvaal				
Amosite	75.00	£ 750	132.50	£1,325
Chrysotile	571.00	4,460	794.00	10,894
Cape				
Blue	166.95	3,308	254.23	5,630
	812.95	£8,518	1,180.73	£17,849

ASBESTOS

Canada.

(Statistics published by Quebec Bureau of Mines and by the Dominion Bureau of Statistics).

	May 1932 Tons (2000 lbs.)	May 1933 Tons (2000 lbs.)
Fibre	9,972	11,121
By-Products	581	248



Imports Into U. S. A.

Unmanufactured Asbestos.

	April 1932 Tons (2240 lbs.)	April 1933 Tons (2240 lbs.)
Canada	5,803	3,838
Italy	1	109
United Kingdom	6	10
	5810	3,957
Value	$165,176	---*

* Value not published.

Division by Grades:

In April 1932, imports from Italy and United Kingdom were Crude; while in April 1933, imports from those same countries were reported as being a very low grade, called stucco. Imports from Canada were divided as follows:

	April 1932 Tons (2240 lbs.)	April 1933 Tons (2240 lbs.)
Crude	4	33
Spinning	)	185
Shingle	) 2,396	283
Paper	)	705
Stucco and lower grades	3,403	2,632
	5,803	3,838

Manufactured Asbestos Goods:

	April 1932	April 1933
Canada	$ 5	.....
France	448	.....
Germany	14	1,287
United Kingdom	838	2,088
	$1,305	$3,375

Exports from U. S. A.

Exports of unmanufactured asbestos during the month of April 1933 amounted to 208 tons, valued at $13,284; compared with 104 tons valued at $7,375 in April 1932.

Exports of Manufactured Asbestos Goods:

	April 1932		April 1933	
	Pounds	Value	Pounds	Value
Paper, Mlbd.	57,154	$3,794	47,782	$3,253
Pipe Covering & Cement	113,955	4,732	174,701	9,037
Textiles & Packing	82,103	40,082	79,719	41,136
Brake Lining—				
Molded and Semi-molded	.....	36,423	.....	28,869
Not Molded[1]	156,297	26,925	187,804	24,901
Magnesia and Mfrs. of	62,842	5,194	25,542	3,099
Asbestos Roofing[2]	2,455	3,565	892	3,305
Other Manufactures	139,138	20,664	76,318	7,621

[1] Lin. Ft. [2] Sqs.

Exports of Raw Asbestos from Canada.

	May 1932		May 1933	
	Tons (2000 lbs.)	Value	Tons (2000 lbs.)	Value
United Kingdom	128	$ 9,850	197	$ 12,260
United States	2,621	146,780	2,497	126,149
Australia	56	3,300	83	4,195
Belgium	195	8,197	415	18,648
France	237	18,105	244	14,206
Germany	125	6,475	631	34,578
Italy	30	3,645	83	4,853
Japan	172	7,680	1,066	60,228
Netherlands	.....	.....	115	5,040
Spain	44	2,890	98	3,771
	3,608	$206,922	5,429	$283,928
Sand and Waste				
United Kingdom	10	188	190	3,450
United States	4,702	67,274	4,363	65,120
British India	30	285	.....	.....
Belgium	60	1,080	80	1,300
France	60	750	65	1,119
Germany	30	540	270	5,170
Italy	28	700	.....	.....
Japan	10	125	5	63
Netherlands	.....	.....	95	1,900
	4,930	$ 70,942	5,068	$ 78,122
Total	8,538	$277,864	10,497	$362,050

ASBESTOS

Imports and Exports by England.

Imports of Raw Material.

	May 1932		May 1933	
	Tons (2240 lbs.)	Value	Tons (2240 lbs.)	Value
From Africa (Rhodesia)	738	£15,148	734	£16,403
From Africa (U. of S.)	520	8,497	955	14,498
From Australia	.....	.....	.....	22
From Canada	69	1,292	513	5,502
From Cyprus	140	2,400	244	4,302
From Finland	.....	.....	5	36
From Germany	125	752	2	31
From Italy	5	35	5	46
From Russia (Soviet Union)	.....	.....	16	154
From U. S. of America	49	386	34	1,027
	1,646	£28,510	2,508	£42,021
Re-Shipments	5	£ 153	50	£ 1,313

Exports of Manufactured Asbestos Goods:

	Cwts.	Value	Cwts.	Value
To Netherlands	600	£2,262	700	£3,362
To France	140	1,736	715	4,880
To U. S. of America	.....	383	40	393
To British India	2,720	6,877	4,256	7,562
To Australia	400	3,972	552	5,178
To Other Countries	14,580	43,296	16,708	47,883
	18,440	£58,526	22,971	£69,258

ASBESTOS STOCK QUOTATIONS

Due to a new law we were unable to get these stock quotations from our usual source, and the information is therefore not as complete as formerly. Arrangements have been made for obtaining full details in future months.

	Par	Div.	June 1933 High	Low
Asbestos Corpn. (Com.) New	np	..	No market	
Asbestos Corpn. (Income Bonds) New	1000	..	No market	
Asbestos Corpn. (Com.) Old	np	..	⅛ - ⅜	Nominal
Asbestos Corpn. (Pfd.) Old	100	7	No sales	
Carey (Com.)	100	..	50	40
Carey (Pfd.)	100	6	53	50
Certainteed (Com.)	np	..	6½	3⅞
Garlock Packing (Pfd.) Retired 1929		..	No market	
Johns-Manville (Com.)	np	..	54¼	36½
Johns-Manville (Pfd.)	100	7	100	72½
Raybestos-Manhattan (Com.)	np	60c	17¾	14⅞
Ruberoid (Com.)	np	1	32	29
Thermoid (Com.)	np	..	8½	2¾
Thermoid (Pfd.)	100	7	31	20

NEWS OF THE INDUSTRY

Birthdays. The following names appear on our birthday list this month: Ray L. Smith, President, Smith-Faris Co., Youngstown, O., whose birthday falls on July 20th; M. T. Rhodes of John M. Watt's Sons, Philadelphia, July 21st; George R. Weber, General Manager, United States Asbestos Division, Manheim, Pa., July 25th; E. H. Pierce, Secretary, Plant Rubber & Asbestos Works, San Francisco, Cal., July 27th; S. R. Zimmerman, President, United States Asbestos Div., August 1st; Wm. G. Kitchen, President Allbestos Corporation, Philadelphia, Pa.; August 2nd; J. A. Whittaker, Secretary-Treasurer, Crandall Packing Co., August 6th; A. P. Keasbey, President, Robert A. Keasbey Co., New York City, August 6th; Paul C. Collopy, President, Acme Asbestos Covg. & Flooring Co., Chicago, Ill., August 8th; Grant V. Wilson, President, Grant Wilson, Inc., Chicago, Ill., August 11th; O. W. Trumbull, Production Manager, Gatke Corporation, North Brookfield, Mass., August 12th. Best wishes and congratulations to all of these gentlemen.

We urge all companies to send in the birthday dates of their officials if they do not appear on our list.

Russell Mfg. Co., of Middletown, Conn., manufacturers of brake linings and other automotive products, report a 38.4% increase in sales in May over April, and a 27% increase in its working force. May sales this year were slightly ahead of May 1932.

F. A. Gerrard, for five years Pacific Coast manager for the Russell Manufacturing Co. and more recently assistant manager of the Replacements Department, has been appointed manager of that department, effective June 12. Mr. Gerrard started with the Russell Manufacturing Company in 1924 as special representative in the New York division. The same year he was appointed assistant manager of the New York division and in 1925 was promoted to New York manager. In 1926 he was transferred to San Francisco as manager of the Pacific Coast division, which position he held until his appointment, in 1930, as assistant manager of the Replacements Department at the Middletown Plant.

Mr. Gerrard states that automobile manufacturers have placed their orders for brake linings, clutch facings, etc., for the last half of the year, a month earlier than usual, principally because they anticipate an advance in prices. Mr. Gerrard replaces W. T. Palmer who is no longer connected with the company.

Asbestos Bureau, Inc. The address of the Seattle, Wash., Office, is now 106 Securities Building instead of 234 Securities Building as formerly.

BLUE ASBESTOS

The "CAPE" quality of blue crocidolite, owing to great tensile strength, volume, and acid-resisting properties, has been proved to be the world's finest material for:-

(1) High Temperature Insulation
(2) Bulkheads and Fireproof Partitions
(3) Asbestos Cement Pipes
(4) Textiles
(5) Electrode Wrappings for Arc Welding

AMOSITE ASBESTOS

owing to its great length of fibre, is ideal both in economy and efficiency as a constituent for:-

85% MAGNESIA COVERINGS

Magnificent success has been achieved with the latest specialty in Amosite material, viz:-

100% AMOSITE SECTIONAL PIPE COVERINGS

AND BOILER CASINGS FOR BOTH MARINE AND POWER PLANT INSTALLATIONS

Address Enquiries to the Mine Owners and Manufacturers::

The Cape Asbestos Co Limited

Morley House 26-30 Holborn Viaduct London E.C.1.

Factory, Barking, Essex

Cape Asbestos Co., Ltd., of London. Giles Newton, formerly General Manager, has been appointed Managing Director of the Cape Asbestos Company, Limited.

A dividend of 4% on the Ordinary Shares has been declared by Cape Asbestos Company Limited, and despite adverse conditions the general results of trading for the year have been fairly satisfactory.

A copy of the balance sheet for the year 1932 follows:

ASSETS

	£	s	d
Cash at Bankers on Deposit and Current Accts. and Cash in hand	32,036	17	5
British Govt. Securities at or under market price on 31st December 1932	109,297	19	8
Bills Receivable	3,515	11	2
Sundry Debtors, less Reserves	26,273	8	1
Amounts Due by Subsidiary Companies	59,974	1	11
Holdings in Subsidiary Companies at cost less amounts written off	55,364	4	11
Freehold Land and Factory at Barking at cost less depreciation	41,857	17	9
Freehold Land and Factory at Turin at cost less depreciation	21,989	12	8
Asbestos Estates in South Africa, at cost less depr.	39,261	12	2
Machinery, Plant, Buildings and Furniture at cost less depr.	18,776	11	5
Stock of Crude and Mfd. Asb. and Stores	97,432	1	6
	505,779	18	8

LIABILITIES

Capital Account				
Authorized	150,000 Ordinary Shares of £1 ea.			
	150 Cum. 5% Part. Pref. Shares £1 ea.			
Issued	125,000 Ordinary Shares of £1 ea.	125,000	0	0
	125,000 Cum. 5% Part. Pref. Shs. £1 ea.	125,000	0	0
Reserve Fund		130,000	0	0
Employees' Benefit Fund		13,876	2	10
First Mortgages and Purchase consideration payable on property in S. A.		6,481	0	4
Sundry Creditors and Bills Payable		15,077	15	10
Provision for Income Tax and Contingencies		8,927	15	9
Exchange Reserve		9,450	17	11
Bank Overdraft and Secured Loans in S. A.		39,521	14	7
Profit and Loss Account				
Balance brought forward from last year		18,056	7	2
Add: Profit for the year 1932		14,388	4	3
		505,779	18	8

Sir Evelyn Wallers, K. B. E., Chairman of the Cape Asbestos Co., Ltd., in presenting this balance sheet commented as follows: "Prospects for the current year must necessarily be qualified by the general condition of activity in the engineering industry and by the measure to which confidence is restored by the international economic outlook. With the elements of uncertainty which exist today a long view is little better than a speculation. You can at any rate be reassured by the continued financial strength disclosed in the balance sheet, and by the fact that since the commencement of the year the company has been able to demonstrate its ability to satisfy any increased demand for asbestos goods which the future may bring."

India Rubber Journal. The following articles of interest to Asbestos Readers, have appeared in recent issues of the India Rubber Journal, published in London: Heat Insulation for

Steam Plants, by A. Lindsay Foster, in the June 3rd issue; Asbestos Pipe Coverings in the June 3rd issue; Asbestos Cloth Aprons in the June 10th issue; Asbestos for Stuffing Boxes in the June 17th issue; Asbestos Filter Cloth in the June 24th issue.

Asbestos Manufacturing Company, Huntingdon, Ind. Balance sheet, Surplus Account and Income Account has been sent us by this company, from which we note that a dividend of 12½c per share, payable July 1st, 1933 to stockholders of Record June 15, 1933, has been declared. Copy of the Balance Sheet as of Dec. 31, 1933, follows:

ASSETS

Cash: On Hand	$ 20.00
The Citizens State Bank of Huntington	7,882.93
First National Bank of Detroit	19,920.69
Accounts Receivable	51,964.33
Inventories of raw material, goods in process, finished goods and stores, at lower of cost or market	108,219.18
Prepaid insurance, dues, etc.	1,340.30
Due from affiliate and fiscal agent	50,948.93
Due from officer and employees	1,361.74
Land, buildings, machinery and equipment as appraised Mar. 17, 1925 with subsequent additions at cost, less allowance for depreciation and repairs	593,320.64
Patents and trade marks	1,618.38
	$836,597.12

LIABILITIES

Accounts payable	$ 13,442.05
Dividends on preferred stock, payable Feb. 1, 1933	5,600.00
Accrued officers' commissions and bonus, taxes and wages	18,758.24
Accrued Federal Income Tax — 1932	19,500.00
	$ 57,300.29

CAPITAL

Capital Stock	
Preferred, Cumulative, convert.	
Outstanding 16,000 shares	$ 16,000.00
Common, authorized 400,000 shares, issued 320,000 shares	320,000.00
Surplus	
Appreciation arising from land, buildings, machinery and equipment	222,534.74
Paid in, annexed	34,000.00
Earned, annexed	186,762.09
	$836,597.12

The Russell Manufacturing Co., the latter part of June released a report from C. A. Richards, Manager of the Southeastern Rusco Division, showing important increases in sales in various districts in the southeastern territory since the first of May, as follows: Nashville, Tenn., 125%; Norfolk, Va., 82%; Greenville, S. C., 72%; Jacksonville, Fla., 46%; Jackson, Miss., 42%; Tampa, Fla., 7%.

Turner & Newall, Ltd. The directors have declared an interim dividend on account of the profits of the year ended September 30, 1933, on the issued ordinary stock at 1¼% actual, less tax (same) payable July 22nd. The usual half yearly dividend on the preference stock at 3½% actual, less tax, will be paid on June 17th. The interim of 1¼% for 1931-32 was followed by a final of 2½%, making 3¾% on the ordinary. Profit for that year was £305,671.

Russian Rubber-Asbestos Combine. Russia is talking in big figures concerning the development of the Yaroslavl Rubber-Asbestos combine. The first seven factories of the combine, according to the monthly review of the Moscow Narodny Bank, started operations at the end of March. The whole combine will consist of twelve factories, and an electric power station of 72,000 kilowatts capacity. The total cost of the construction is now estimated at 350 million roubles. The combine, exclusive of the electric station is estimated to show an output valued at more than 1,000 million roubles per annum when working to capacity. The construction of the combine was begun in 1930. Yaroslavl was selected as the site for these works owing to its situation on the banks of the Volga, at an important railway junction, and near great peat bogs, the peat from which will be used as fuel. It is also claimed to be favorably situated with regard to the supply of building materials, textiles and chemicals, and is easy of access for shipments of rubber. The tyres and asbestos parts for motor vehicles manufactured in Yaroslavl will be shipped along the Volga and by rail to the Gorky (formerly Nizhni-Novgorod) automobile factory, to the Stalingrad tractor works, to the Stalin motor lorry plant in Moscow, the Red Putilov tractor works in Leningrad, and to the Kharkov tractor plant. The rubber tyre factory of the combine, it is asserted will be the largest in Europe, as it is planned to turn out 6,500,000 tyres per annum. The asbestos factory will concentrate on the production of thirty-five different parts for motor cars and tractors. These will include brake linings and clutch facings for the whole motor car and tractor industry of the Soviet Union.

South African Government Subsidy. This subsidy, which as far as asbestos is concerned has hitherto stood at 10%, on the material exported from the Union, has been reduced to 7%.

Russell Manufacturing Company. G. A. Hastings has been unanimously elected Secretary and Treasurer and a Director of the Russell Manufacturing Company, Sales Division, and the Russell Manufacturing Company, Limited, its Canadian subsidiary. Mr. Hastings, who is also Comptroller of the Company, succeeds P. J. Goldner, who has resigned both positions. Mr. Hastings has been identified with the Russell Manufacturing Company since June, 1921. Starting in a clerical position, he has since held positions as factory accountant, credit manager, chief accountant, assistant to general manager, and he was reported comptroller February, 1933.

PATENTS

Method of Dispersing Asbestos and Resulting Product. No. 1,907,616. Granted on May 9th to Geo. R. Tucker, North Andover, Mass., assignor to Dewey & Almy Chemical Co., a corporation of Massachusetts. Filed April 17, 1931. Serial No. 530,998.

Described as a method of dispersing asbestos which comprises the addition to an aqueous suspension thereof of a soluble salt of polyvalent metal and a monobasic acid. An aqueous dis-

persion of asbestos containing a soluble salt of thorium and monobasic acid.

Manufacture of Rubber Bonded Asbestos. No. 1,907,617. Granted on May 9th to George R. Tucker, North Andover, Mass., assignor to Dewey & Almy Chemical Co. Filed April 17, 1931. Serial No. 530,999.

Described as the method of treating mineral fibres normally coagulative of rubber dispersions which comprises pre-aggregating the rubber dispersion and thereafter contacting the fibres therewith.

Treatment of Asbestos with Latex and Product thereof. No. 1,907,634. Granted on May 9th to William B. Westcott, Boston, Mass., assignor to Dewey & Almy Chemical Co. Filed June 10, 1930. Serial No. 460,305.

Described as the method of coagulating rubber upon asbestos fibre, characterized by preparation of a dispersion in the aqueous vehicle of a rubber latex, of asbestos fibres in mutually separated relation and a protective at a temperature where at the protective is effective, then raising the temperature of the mix to the point at which the protective ceases to be effective against the asbestos, thereby producing rubber coagula uniformly distributed about and among the asbestos fibres individually.

Also composition of matter comprising a dry mass of discrete asbestos fibres individually surrounded by rubber coagula and capable of dispersion in water.

Art and Apparatus for Making Textile Yarns. No. 1,908,472. Granted on May 9th to Philip David Cannon, Philadelphia, assignor to Johns-Manville Corporation. Filed Jan. 6, 1931. Serial No. 506,841.

Described as the art of making a yarn from textile material of inferior spinning capacity comprising preparing a condensed unspun carded strand, winding said strand in reversed helical coils to form a package and subsequently unwinding the package so as to deliver the strand vertically in a slack state without substantial tensile stress tending to elongation of the strand thru a twisting run induced by a spinning device.

Packing. No. 1,909,534. Granted on May 16th to Charles C. Hall, Kalamazoo, Mich., assignor to Durametallic Corporation, Kalamzoo. Filed Jan. 17, 1930. Serial No. 421,394.

Described as a packing comprising a core in the form of a cable consisting of a plurality of bare strands of asbestos fibre and a plurality of bare strands of rubber and a plurality of strips of metal foil coated with graphite and oil crinkled and spirally wrapped and compressed upon said core.

RU-BER-OID

YOU can now obtain from *The Ruberoid Co.* a complete line of Asbestos and Asphalt Building Products as listed below.

ASBESTOS SHINGLES
- Tapered American Method
- Hexagonal Method
- Dutch Lap Method

ASBESTOS ROOFINGS
- Smooth Surfaced

ASBESTOS PAPERS
- Commercial Paper
- Heavy Asbestos Paper (Roll Board)

ASBESTOS PIPE COVERINGS AND BOILER INSULATION
- Sectional Pipe Coverings
  - Aristo Brand
  - Imperial Brand
  - Celasbestos Brand
  - Watcocel Brand
  - Anti-sweat Brand
- Lagging Blocks
  - Aristo Laminated
  - Imperial Brand
  - Celasbestos Brand
  - Watcocel Brand

ASBESTOS MILL BOARD

ASBESTOS CORRUGATED SHEETS

ASBESTOS FLAT SHEETS

ASPHALT SHINGLES
- Units
- Strips

BUILT-UP ROOFING MATERIALS
- Asbestos Felts
- Asphalt Felts
- Tarred Felts
- Roofing Asphalt
- Bond Roofing Asphalt
- Coal Tar Pitch
- Concrete Primer

ASPHALT ROLL ROOFINGS
- Smooth-surfaced
- Mineral-surfaced

INSULATING AND SHEATHING PAPERS
- Kraft Building Papers
- Asphalt Coated
- Tarred Slaters Felts
- Red Sheathing
- Deadening Felts

The RUBEROID Co.

ROOFING MANUFACTURERS FOR OVER FORTY YEARS

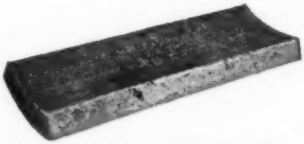
Sales Divisions: RUBEROID MILLS — CONTINENTAL ROOFING MILLS
SAFEPACK MILLS — H. F. WATSON MILLS — ETERNIT

Offices & Factories: New York, N. Y. — Chicago, Ill. Millis, Mass. — Erie, Pa. — Baltimore, Md. — Mobile, Ala.

85% MAGNESIA
PIPE & BOILER
COVERINGS.

HIGH
TEMPERATURE
INSULATION AND
CEMENTS.

SEVERAL VALUABLE
TERRITORIES
OPEN FOR
DISTRIBUTORS



AIR CELL, WOOL FELT, CORK, ASBESTOS CEMENT

Ehret Magnesia Manufacturing Co.

EXECUTIVE OFFICES AND FACTORIES

VALLEY FORGE, PA.

BRANCH OFFICES

NEW YORK PHILADELPHIA CHICAGO

REPRESENTATIVES

IN ALL PRINCIPAL CITIES AND COUNTRIES

One Little Ad.

One step won't take you far,
You've got to keep on walking;
One word won't tell folks who you are,
You've got to keep on talking;
One inch won't make you very tall,
You've got to keep on growing;
One little ad won't do it all,
You've got to keep them going.

Source Unknown.